DM-MD8X8

8x8 DigitalMedia™ Switcher

Crestron® DM® Switchers provide the foundation for a complete DigitalMedia™ system, delivering an advanced 4K ultra high-definition AV signal routing solution that's extremely flexible and installer-friendly. The DM-MD8X8 affords ultra fast switching and pure, lossless distribution of HDMI® and other signals to support all the digital media players, HDTV receivers, computers, cameras, and display devices that fill any modern home or commercial facility. DigitalMedia thoughtfully manages all of the disparate AV signals and devices to deliver a transparent user experience, and to ensure an optimum video image and audio signal at every location.

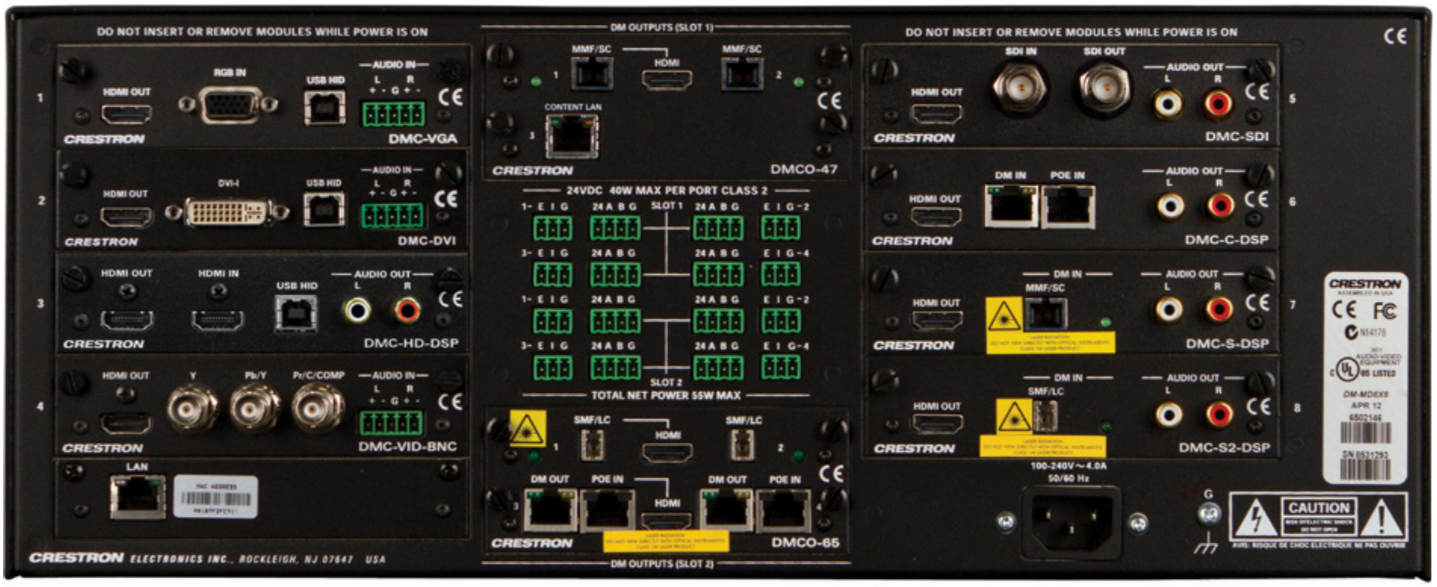
The DM-MD8X8 is field-configurable to handle up to eight AV sources of virtually any type. The outputs are also field-configurable to provide up to eight DM, HDBaseT®, and/or HDMI outputs, or up to four H.264 streaming outputs, in a single chassis.[1] A full selection of DM switcher input and output cards, DM transmitters, and DM receivers provides extensive connectivity throughout a residence or commercial facility, supporting a complete range of analog and digital signal types — all through one switcher!

Integrated Ethernet networking and USB distribution provide a complete connectivity solution combined with built-in Crestron control[2] for managing the displays and other room devices without necessitating any additional wiring. User-friendly operation, setup, and troubleshooting tools are provided through the DM-MD8X8 front panel, or via Crestron Toolbox™ software, to make setting up a complete multiroom 4K video distribution system easy.

To configure a DM switcher complete with input and output cards, cables, and other peripherals, please use the DigitalMedia Switcher Configuration Tool.

- *Delivers a unified HD signal distribution solution incorporating both point-to-point wired and IP streaming technologies*
- *Provides lossless HD AV signal routing over twisted pair copper wire or fiber*
- *Integrates video, audio, networking, and control over one wire or fiber strand*
- *Enables high-performance H.264 streaming from any input source up to 1080p or WUXGA*
- *Affords full matrix switching with ultra high 12.5 Gbps backplane data rate*
- *Handles HDMI® with Deep Color, 3D, 4K, and high-bitrate 7.1 encoded audio[3]*
- *HDBaseT® Certified — Enables direct connection to other HDBaseT certified equipment*
- *HDCP 2.2 compliant via compatible input and output cards[3]*
- *Distributes Full HD 1080p, Ultra HD, and 4K signals over CAT type twisted pair cable at distances up to 330 ft (100 m) via DM 8G+® and HDBaseT[4,9]*
- *Distributes 1080p and WUXGA signals over multimode fiber at distances up to 1000 ft (300 m) via DM 8G® Fiber[5,9]*
- *Distributes 1080p and WUXGA signals over single-mode fiber at distances up to 7.5 miles (12 km) via DM 8G SM Fiber[6,9]*
- *Allows streaming of 1080p signals over an IP network with no distance limitations*
- *Also supports all first-generation DM® CAT and DM Fiber products[7,8,9]*
- *Configurable with up to eight DM, HDBaseT, and/or HDMI outputs*
- *Configurable with up to four streaming outputs[1]*
- *Easy output expansion using multiple DM switchers*
- *Modular inputs support a complete range of digital, analog, and streaming signal types*
- *QuickSwitch HD® technology manages HDCP keys for fast, reliable switching*
- *Auto-Locking™ technology achieves rapid switching between disparate sources*
- *Detects and displays detailed video and audio input information*
- *Performs automatic AV signal format management via EDID*
- *Allows independent scaling for every display through select DM receivers[12]*
- *Enables device control via CEC*
- *Distributes USB HID mouse and keyboard signals[15]*
- *Expanded USB routing capabilities available using USB over Ethernet Extenders[15]*
- *Allows full audio and USB breakaway switching*
- *Integrates with analog audio distribution systems*
- *Enables simultaneous output of stereo and surround sound audio*
- *Includes integrated Ethernet switch with Gigabit LAN port*
- *Private Network Mode — requires just one IP address for the complete DM system*
- *Provides easy setup and diagnostics tools via front panel or software*
- *Half-million hour rated internal universal power supply*
- *4-space 19-inch rack-mountable*

DM-MD8X8 8x8 DigitalMedia™ Switcher



DM-MD8X8 – Rear view with I/O cards installed

4K Ultra HD

Crestron DigitalMedia continues to advance the standard for digital AV signal distribution, delivering the world's first end-to-end 4K system solution. From day one, the DM-MD8X8 was designed to meet the extreme bandwidth requirements for handling 4K and Ultra HD video signals. Support for 4K video also ensures support for the latest generation of computers and monitors with native resolutions beyond 1080p and WUXGA.[3]

DigitalMedia 8G™

As the leader in HDMI and control system technologies, Crestron developed DigitalMedia (DM) to deliver the first complete HD AV distribution system to take HDMI to a higher level. DigitalMedia allows virtually any mix of HDMI and other AV sources to be distributed throughout a room, building, or campus. The latest generation of DM is called DigitalMedia 8G (DM 8G®). Engineered for ultra high-bandwidth and ultimate scalability, DM 8G provides a true one-wire lossless transport for moving high-definition video, audio, Ethernet, and control signals over a choice of twisted pair or fiber optic cable.

DM 8G handles uncompressed Full HD 1080p, Ultra HD, 2K, and 4K[3] video signals with support for 3D, Deep Color, and HDCP 2.2[3]. Audio capabilities include the simultaneous distribution of stereo and multichannel surround sound signals, with support for high-bitrate 7.1 audio formats like Dolby® TrueHD and DTS-HD Master Audio™ as well as uncompressed linear PCM. All signals are transported over one CAT type twisted pair cable or one strand of multimode or single-mode fiber. DM 8G enables wire distances up to 330 feet (100 m) via DM 8G+® (DM 8G over twsited pair copper wire)[4,9], 1000 feet (300 m) via DM 8G Fiber (DM 8G over multimode fiber)[5,9], or 7.5 miles (12 km) via DM 8G SM Fiber (DM 8G over single-mode fiber)[6,9].

The DM-MD8X8 provides full support for Crestron DM 8G devices as well as all first-generation DM CAT[7,9] and DM Fiber[8,9] products, letting you take advantage of the latest Crestron DM 8G technology without compromising your existing investment.

HDBaseT® Certified

Crestron DigitalMedia 8G+® technology is designed using HDBaseT Alliance specifications, ensuring interoperability with other HDBaseT certified products. Via DM 8G+, the DM-MD8X8 can be connected directly to an HDBaseT compliant device without requiring a DM transmitter or receiver.

H.264 Streaming

High-performance H.264 streaming capability enables enterprise-wide distribution of HD content over an IP network. Streaming expands the capabilities of DM to remove all distance limitations and allow distribution to virtually any device — anywhere in the world. Streaming is an essential component of any complete DM system, allowing for high-definition signal routing to Crestron touch screens, digital signage displays, remote buildings, and global offices without requiring any new or dedicated wiring. Large-scale streaming to computers and mobile devices can be facilitated through integration with a streaming media system such as Wowza® or Kaltura®.

DigitalMedia with streaming affords the ability to distribute any combination of sources to virtually any device anywhere. Each streaming output supports resolutions up to HD 1080p at bitrates up to 25 Mbps. Built-in scaling enables fast, trouble-free switching between sources of any type or resolution up to 1080p or WUXGA. Audio support includes stereo signals, as well as multichannel audio signals downmixed to stereo via any "DSP" type input card.[10] High-quality video and audio is maintained using high-performance H.264 video and AAC audio compression. The encoded video and audio can be output as independent RTP streams or encapsulated in an MPEG-TS (MPEG-2 Transport Stream) container. HDCP management ensures that protected content cannot be distributed via streaming.

Each streaming output is actually fed internally by two separate switcher outputs, allowing any two input sources to appear picture-in-picture or side-by-side in a single stream. Instant, single-frame switching between two full screen images is also possible. The audio signals from both input sources can also be mixed, allowing both signals to be heard simultaneously.

DM-MD8X8 8x8 DigitalMedia™ Switcher

The DM-MD8X8 can receive streaming signals as well as transmit them. Streaming input capability enables IP cameras and other H.264 encoded sources to be distributed via DigitalMedia alongside HDMI and other non-streaming sources. It also allows DM switchers to be bridged together across a campus or around the world, enabling simplified routing of HD content between buildings and global offices.

DigitalMedia provides many deployment options to address a wide range of streaming applications and accommodate each organization's specific IT requirements. DM with streaming supports both unicast and multicast, with or without RTSP (Real Time Streaming Protocol). Streaming connections can be configured to stream directly to one or more specific IP addresses, or to use RTSP to manage the configuration of numerous connections automatically. Any streaming input or output may be configured to stream via the DM switcher's LAN port or via a dedicated "CONTENT LAN" port, allowing the option to combine control and content on a single network or isolate them onto separate networks.

Modular Architecture

The DM-MD8X8 features a modular architecture with 8 input card slots, and 4 dual output card slots. Each card slot on the DM-MD8X8 is field-installable, allowing for easy and flexible system configuration with the ability to make changes to the system as needs change. A wide selection of input cards is offered to support a complete range of digital and analog AV signal types including HDMI, DVI, DisplayPort Multimode[11], SDI, RGB/VGA and analog video, SPDIF and analog audio, HDBaseT, H.264 streaming, and all types of DigitalMedia. Available outputs include all types of DigitalMedia, as well as HDBaseT, HDMI, analog audio, and H.264 streaming.[1]

Output Expansion

An HDMI "pass-through" output is provided on every input card to allow the inputs of up to 5 DM switchers to be daisy-chained, enabling the configuration of very large distribution systems with many outputs. Using five DM-MD8X8 switchers, it is possible to support up to 40 separate outputs.

QuickSwitch HD®

Handling high-definition digital media means handling HDCP (High-bandwidth Digital Content Protection), the encryption scheme that content providers use to protect their DVDs, Blu-ray™ discs, and broadcast signals against unauthorized copying. Viewing HDCP encrypted content requires a source device to "authenticate" each display and signal processor in the system and issue it a "key" before the content can be viewed. Ordinarily this causes a complete loss of signal for up to 15 seconds each time a new source or display is selected anywhere in the system. To make matters worse, every source device has a limited number of keys available, so connect too many displays and the source will simply stop outputting a signal without warning.

Not to worry — Crestron QuickSwitch HD manages the keys for every HDCP-compliant device in the system, maintaining continuous authentication for each device to ensure fast, reliable routing of any source to any number of display devices.

Auto-Locking™ Technology

Crestron Auto-Locking Technology enables super fast signal switching by instantaneously configuring every device in the signal path as soon as the signal hits the first device. Whether switching between sources or TV channels, Auto-Locking significantly reduces the time it takes each device to sense the new signal and configure itself to handle the changes, virtually eliminating any noticeable gap while switching.

EDID Format Management

With all of today's varied AV sources comes a multitude of confusing video and audio formats to keep track of, and chances are not every device in your system supports all of the same formats. Such conflicts can wreak havoc any time you route one source to more than one display or audio component. The media source feeding your 1080p or Ultra HD projector in the theater may restrict itself to a lower resolution, or even shut off completely, if someone decides to view the same signal on a smaller TV in another room. And, instead of enjoying your theater's incredible 7.1 surround sound, you may find yourself limited to 5.1 or even plain old stereo.

DigitalMedia eliminates such conflicts by managing the EDID (Extended Display Identification Data) that modern digital devices use to communicate their capabilities. Via Crestron Toolbox software, the format and resolution capabilities of each device can be assessed, allowing the installer to configure EDID signals appropriately for the most desirable and predictable behavior.

A Scaler for Every Display

High-performance scaling capability can be added to any DM system using select DM receivers with built in HD and 4K scalers. By placing an independent scaler at every display device, DigitalMedia truly delivers the most flexible and user-friendly solution for routing multiple disparate sources to many different display devices. This "Distributed Scaler Approach" ensures an optimal image on every screen no matter what sources are selected. Distributed scaling allows a high-res computer source to be viewed on any display in the building. It also allows an HD, Ultra HD, or 3D video source to be viewed simultaneously on the 4K display in your theater and on lower-resolution 2D displays throughout the house.

Versatile Audio Routing

HDMI is the key to handling all the latest 7.1 surround sound formats like Dolby TrueHD and DTS-HD Master Audio. Great for your high-end home theater, but how do you share that same source with other audio zones in the house?

DigitalMedia provides the answer, allowing for the simultaneous distribution of multichannel surround sound and two-channel stereo signals from the same HDMI source. Using a choice of "DSP" type input cards, the DM-MD8X8 employs onboard digital processing to derive a stereo downmix from the original multichannel signal. Both signals can be routed separately or simultaneously from any of the switcher's DM outputs, allowing either signal to be selected for output at each DM receiver location.

Back at the switcher, the digital stereo signal is also converted to analog to enable sharing with every other room in the house via a Sonnex® Multiroom Audio System or any other audio distribution system. The DM-MD8X8 also allows surround sound processors and amplifiers to be

located centrally instead of at the display location via optional local HDMI outputs.

Built-in Ethernet Switch

In addition to transporting digital video and audio, DigitalMedia can also extend 10/100 Ethernet out to each display and source device via select DM receivers and transmitters, providing high-speed connectivity for any room device that requires a LAN connection. Ethernet is also utilized internally by the Crestron control bus to manage all of the DM devices in the system and provide display control in each room.

Private Network Mode

To streamline its implementation on a corporate or university LAN, the DM-MD8X8 employs Private Network Mode to provide a single-point connection for the complete system. Using Private Network Mode, the DM-MD8X8 requires just one IP address for the complete DM network including all connected DM receivers and transmitters.

USB Signal Routing

Along with video, audio, and Ethernet, DigitalMedia also provides for the routing of USB HID (Human Interface Device) signals, allowing a USB HID compliant keyboard and/or mouse at one location to control a computer or media server at another location. USB HID connectivity is provided through select DM receivers, transmitters, and input cards.

Crestron also offers USB extenders to enable the routing of virtually any type of USB peripheral to any host device, all managed through the DigitalMedia system. Connect a USB over Ethernet Extender host module (USB-EXT-DM-LOCAL[12]) to each computer, media server, game system, annotator, and any other host that you want to control or communicate with. Then, install a device module (USB-EXT-DM-REMOTE[12]) at every display location to connect keyboards, mice, game controllers, whitboards, flash drives, Web cameras, and mobile devices. Every module communicates with the DM switcher over the local Ethernet network or via a direct connection to the LAN port of a DM transmitter or receiver.

CEC Embedded Device Control

The primary objective of every Crestron system is to enable precisely the control desired for a seamless user experience. DigitalMedia provides an alternative to conventional IR and RS-232 device control by harnessing the CEC (Consumer Electronics Control) signal embedded in HDMI. Through its connection to the control system, the DM-MD8X8 provides a gateway for controlling many devices right through their HDMI or HDBaseT connections, potentially eliminating the need for any dedicated control wires or IR emitters.[13]

Easy Setup

Via the front panel or using Crestron Toolbox software, every step of the DM-MD8X8's setup process is designed to be quick and easy, configuring inputs and outputs automatically while letting the installer make intelligent design decisions along the way. The switcher even tests and measures the length of each DM cable, automatically making the appropriate calibrations for optimal signal transmission to every room. With DigitalMedia, an entire 8x8 system can be commissioned in under an hour.

To configure a DM switcher complete with input and output cards, cables, and other peripherals, please use the DigitalMedia Switcher Configuration Tool.

Are you upgrading an existing DM switcher that has older "multi-gang" DMCO-series output cards? Use the online Output Card Additions and Upgrades Tool to update your existing output cards and switcher to the new "single-gang" output card format.

Please refer to the DigitalMedia Resources Webpage at http://www.crestron.com/dmresources/ *for additional design tools and reference documents.*

SPECIFICATIONS

Maximum DM 8G® Cable Lengths

Cable Type: / Resolution:	DM-CBL-ULTRA DM® Ultra Cable	DM-CBL-8G DM 8G® Cable	3rd-Party CAT5e (or better) UTP or STP
1080p60 Full HD	330 ft (100 m) via any DM 8G+ cards		
1920x1200 WUXGA			
1600x1200 UXGA			
2048x1080 2K DCI @24Hz			
2048x1080 2K DCI @60Hz	330 ft (100 m) via "4K" DM 8G+ cards	230 ft (70 m) via "4K" DM 8G+ cards	165 ft (50 m) via "4K" DM 8G+ cards
2560x1440 WQHD			
2560x1600 WQXGA			
3840x2160 Ultra HD			
4096x2160 4K DCI			

Cable Type: / Resolution:	CRESFIBER8G CresFiber® 8G Multimode Fiber	3rd-Party OM3 Multimode Fiber
1080p60 Full HD	1000 ft (300 m) via DM 8G Fiber cards	500 ft (150 m) via DM 8G Fiber cards
1920x1200 WUXGA		
1600x1200 UXGA		
2048x1080 2K DCI @24Hz		

Cable Type: / Resolution:	CRESFIBER8G-SM CresFiber 8G Single-Mode Fiber	3rd-Party G.652.D (or better) Single-Mode Fiber
1080p60 Full HD	7.5 miles (12 km) via DM 8G SM Fiber cards	
1920x1200 WUXGA		
1600x1200 UXGA		
2048x1080 2K DCI @24Hz		

DM-MD8X8 8x8 DigitalMedia™ Switcher

Video

Switcher: 8x8 digital matrix, modular input/output cards, Crestron QuickSwitch HD®

Input Signal Types: Configurable via modular plug-in cards supporting HDMI®, DisplayPort Multimode[11], DVI, HDBaseT®, 3G-SDI, RGB/VGA, component, S-Video, composite (NTSC & PAL), DM® CAT, DM Fiber, DM 8G+®, DM 8G Fiber, DM 8G SM Fiber, & H.264 streaming

Output Signal Types: Configurable via modular plug-in cards supporting DM CAT, DM Fiber, DM 8G+, DM 8G Fiber, DM 8G SM Fiber, HDBaseT, HDMI, DVI[14], & H.264 streaming (All input cards also include HDMI pass-through outputs)

Backplane Data Rate: 12.5 Gbps

Note: For additional specifications, please refer to the spec sheet for each input and output card.

Audio

Switcher: 8x8 digital multichannel audio-follow-video matrix switching, plus independent 8x8 stereo matrix for audio breakaway

Input Signal Types: Configurable via modular plug-in cards supporting HDMI, DisplayPort Multimode[11], HDBaseT, 3G-SDI, analog (stereo 2-channel), SPDIF, DM CAT, DM Fiber, DM 8G+, DM 8G Fiber, DM 8G SM Fiber, & H.264 streaming

Output Signal Types: Configurable via modular plug-in cards supporting DM CAT, DM Fiber, DM 8G+, DM 8G Fiber, DM 8G SM Fiber, HDBaseT, HDMI, analog (stereo 2-channel), & H.264 streaming; (All input cards also include HDMI pass-through outputs, and most digital audio input cards also include analog stereo pass-through audio outputs)

Note: For additional specifications, please refer to the spec sheet for each input and output card.

Communications

Ethernet: 10/100/1000 Mbps, auto-switching, auto-negotiating, auto-discovery, full/half duplex, DHCP, Private Network Mode

USB: USB signal routing via select input cards, transmitters, receivers, and extenders[15]; USB computer console port for setup

DigitalMedia: DM 8G+, DM 8G Fiber, DM 8G SM Fiber, DM Fiber, DM CAT, DMNet®, HDCP 2.2[3], EDID, CEC, PoDM, PoDM+, Ethernet

HDBaseT: HDCP 2.2[3], EDID, CEC, PoH, Ethernet

HDMI: HDCP 2.2[3], EDID, CEC

NOTE: Supports management of HDCP and EDID; supports management of CEC between connected HDMI and HDBaseT devices and a control system[13]. For additional specifications, please refer to the spec sheet for each input and output card.

Card Slots

1 – 8: (8) DM switcher input card slots;
Each slot accepts (1) DMC-series input card

DM OUTPUTS: (4) DM switcher output card slots;
Each slot accepts (1) DMC-series output card

Connectors

LAN: (1) 8-wire RJ45 female;
10Base-T/100Base-TX/1000Base-T Ethernet port

24ABG / EIG 1 – 4 (SLOT 1 – 2): (8) sets of (1) 4-pin and (1) 3-pin 3.5mm detachable terminal blocks;
Comprises (8) DMNet ports with "EIG" power selection ports, each set associated with a corresponding DM CAT output port on the output card in either output slot;
Each DMNet port provides power and communications for a DM CAT device connected via DM cable;
Each EIG port connects to an external power supply[16], or to the internal power source via a jumper, to power the DM CAT device connected to the corresponding DMNet port;
Maximum Load: 75 Watts (3.13 Amps @ 24 Volts DC) per port when connected to external power supply[16], otherwise limited to available DMNet power (see "Power Requirements" below)

100-240V~300W 50/60Hz: (1) IEC 60320 C14 main power inlet;
Mates with removable power cord, included

G: (1) 6-32 screw, chassis ground lug

COMPUTER (front): (1) USB Type B female;
USB computer console port (6 ft cable included)

LCD Display

Green LCD dot matrix, 128 x 64 resolution, adjustable LED backlight;
Displays inputs/outputs by name, video & audio signal information, Ethernet configuration and setup menus

Controls & Indicators

SOFTKEYS: (4) pushbuttons for activation of LCD driven functions
HW-R: (1) recessed miniature pushbutton for hardware reset, reboots the switcher
ROUTE: (1) pushbutton and red LED, selects ROUTE mode to allow routing changes
VIEW: (1) pushbutton and red LED, selects VIEW mode for viewing current routes
INFO: (1) pushbutton and red LED, selects INFO mode for viewing AV and device info
MENU: (1) pushbutton, steps menu back one level
ENTER: (1) pushbutton, executes highlighted menu or value
AUDIO: (1) pushbutton & red LED, selects audio routing view
VIDEO: (1) pushbutton & red LED, selects video routing view
USB: (1) pushbutton & red LED, selects USB routing view
Quick-Adjust Knob: (1) continuous turn rotary encoder, adjusts menu parameters
IN 1 – 8: (8) pushbuttons and red LEDs, select input for routing
OUT 1 – 8: (8) pushbuttons and red LEDs, select output for routing
LAN (rear): (2) LEDs, green LED indicates Ethernet link status, amber LED indicates Ethernet activity

DM-MD8X8 8x8 DigitalMedia™ Switcher

Power Requirements

Main Power: 300 Watts @ 100-240 Volts AC, 50/60 Hz
Available DMNet Power: 55 Watts (2.3 Amps @ 24 Volts DC) from internal power supply
Available PoDM/PoH Power: Refer to the specifications for each DM 8G+ input and output card

Environmental

Temperature: 32° to 104°F (0° to 40°C)
Humidity: 10% to 90% RH (non-condensing)
Heat Dissipation: 750 BTU/Hr
Ambient Noise: 31.5 to 37 dBA typical;
30 to 30.5 dBA idle

Enclosure

Chassis: Metal with black finish, vented sides, fan-cooled
Front Panel: Metal, black finish with polycarbonate label overlay
Mounting: Freestanding or 4U 19-inch rack-mountable (adhesive feet and rack ears included)

Dimensions

Height: 6.97 in (177 mm) without feet
Width: 17.28 in (439 mm), 19.00 in (483 mm) with ears
Depth: 18.13 in (461 mm) without cards

Weight

20.0 lb (9.1 kg) without cards

MODELS & ACCESSORIES

Available Models

DM-MD8X8: 8x8 DigitalMedia™ Switcher

Available Accessories

DMC Series: Input & Output Cards
DM-PSU-8: 8-Port PoDM Power Supply
DM-PSU-16: 16-Port PoDM Power Supply
DM-CBL-ULTRA-NP: DigitalMedia™ Ultra Cable, Non-Plenum Type CMR
DM-CBL-ULTRA-P: DigitalMedia™ Ultra Cable, Plenum Type CMP
DM-CBL-ULTRA-LSZH: DigitalMedia™ Ultra Cable, Low Smoke Zero Halogen
DM-CONN: Connector for DM-CBL & DM-CBL-ULTRA
DM-CBL-8G-NP: DigitalMedia 8G™ Cable, non-plenum
DM-CBL-8G-P: DigitalMedia 8G™ Cable, plenum
DM-8G-CONN: Connector for DM-CBL-8G
DM-8G-CRIMP: Crimping Tool for DM-8G-CONN
DM-8G-CONN-WG: Connector with Wire Guide for DM-CBL-8G
DM-8G-CRIMP-WG: Crimping Tool for DM-8G-CONN-WG
DM-CBL-NP: DigitalMedia™ Cable, non-plenum
DM-CBL-P: DigitalMedia™ Cable, plenum-rated
DM-CBL-D-NP: DigitalMedia™ D Cable, non-plenum
DM-CBL-D-P: DigitalMedia™ D Cable, plenum
DM-DR: DigitalMedia™ CAT Repeater
CRESFIBER8G-NP: CresFiber® 8G Multimode Fiber Optic Cable, 50/125 x4 breakout, non-plenum
CRESFIBER8G-P: CresFiber® 8G Multimode Fiber Optic Cable, 50/125 x4 breakout, plenum
CRESFIBER-CONN-SC50UM-12: Connectors for CresFiber® 8G Multimode Fiber Optic Cable, SC 50µm, 12-Pack
CRESFIBER8G-SM-P: CresFiber® 8G Single-Mode Fiber Optic Cable, plenum
CRESFIBER8G-SM-CONN-LC-12: Connectors for CresFiber® 8G Single-Mode Fiber Optic Cable, LC, 12-Pack
CRESFIBER-TK: CresFiber® Termination Kit
CRESFIBER-SINGLE-SC-P: CresFiber® Simplex Fiber Optic Cable Assemblies, 50/125, SC, Plenum
USB-EXT-DM: USB over Ethernet Extender with Routing

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Notes:

1. All output types are configured in pairs except for streaming (a single streaming output occupies the space of two outputs of any other type). To configure a complete DM switcher with output and input cards, please use the online DigitalMedia Switcher Configuration Tool. Current DM switchers use DMC-series "single-gang" output cards. For older DM switchers with DMCO-series "multi-gang" output cards, please use the online Output Card Additions and Upgrades Tool to update your existing output cards and switcher to the new single-gang output card format.
2. Crestron control via the DM network requires a Crestron control system, sold separately.
3. 4K, Ultra HD, and HDCP 2.2 are currently supported over HDMI, DM 8G+, and HDBaseT using select input and output cards. Refer to the specifications for each card for its full capabilities.
4. The maximum cable length for DigitalMedia 8G+ (DM 8G+) or HDBaseT is dependent upon the type of cable, the choice of input/output card, and the resolution of the video signal. Refer to the "Maximum DM 8G Cable Lengths" table for a detailed overview. Crestron legacy cable models DM-CBL DigitalMedia Cable and DM-CBL-D DigitalMedia D Cable support the same resolutions and cable lengths as CAT5e. Shielded cable and connectors are recommended to safeguard against unpredictable environmental electrical noise which may impact performance at resolutions above 1080p. DM 8G+ is compatible with HDBaseT Alliance specifications for connecting to HDBaseT compliant equipment.
5. The maximum cable length for DigitalMedia 8G Fiber (DM 8G Fiber) is 1000 ft (300 m) using CRESFIBER8G multimode fiber optic cable, or 500 ft (150 m) using CRESFIBER (legacy), CRESFIBER-SINGLE-SC, or third-party OM3 simplex multimode fiber optic cable.
6. The maximum cable length for DigitalMedia 8G Single-Mode Fiber (DM 8G SM Fiber) is 7.5 miles (12 km) using CRESFIBER8G-SM or third-party G.652.D (or better) single-mode fiber optic cable.
7. The maximum cable length for DigitalMedia CAT (DM CAT) is 450 ft (137 m) using DM-CBL DigitalMedia Cable. Actual cable length depends upon multiple factors. Up to two DM Repeaters (Model DM-DR) may be required.
8. The maximum cable length for DigitalMedia Fiber (DM Fiber) is 1000 ft (300 m) using CRESFIBER (legacy), CRESFIBER8G, or third-party OM2/OM3 duplex multimode fiber optic cable.
9. Refer to the Crestron DigitalMedia Design Guide, Doc. #4546 for complete system design guidelines. All wire and cables are sold separately.
10. Streaming output supports 2-channel stereo audio only. Multichannel surround sound audio sources cannot be streamed unless downmixed to stereo. Stereo downmix capability requires a "DSP" type DM switcher input card, sold separately.
11. DisplayPort Multimode connectivity is supported via an HDMI or DVI input port using a suitable adapter or interface cable.
12. Item(s) sold separately.
13. Control of third-party HDBaseT devices using CEC is only supported via "4K" DM 8G+ input and output cards.
14. DVI output is supported via an HDMI output port using a suitable adapter or interface cable. CBL-HD-DVI interface cables are available separately.
15. Manages the routing of USB HID signals between peripheral DM devices and input cards that are equipped with USB HID ports. Also programmable to manage the routing of USB signals between Crestron USB over Ethernet Extender modules (USB-EXT-DM, sold separately). Refer to the USB-EXT-DM spec sheet for more information.
16. For external DMNet power, use a Crestron CNPWS-75, C2N-SPWS300, or other Cresnet power supply as required. Do not interconnect DMNet with Cresnet.

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

The specific patents that cover Crestron products are listed online at: patents.crestron.com.

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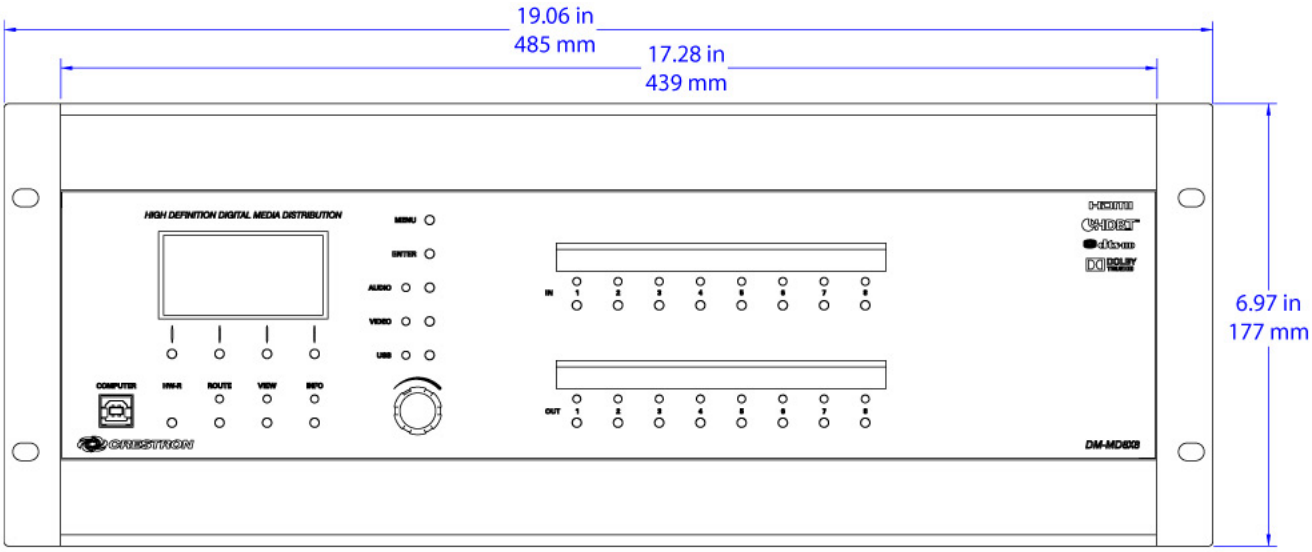
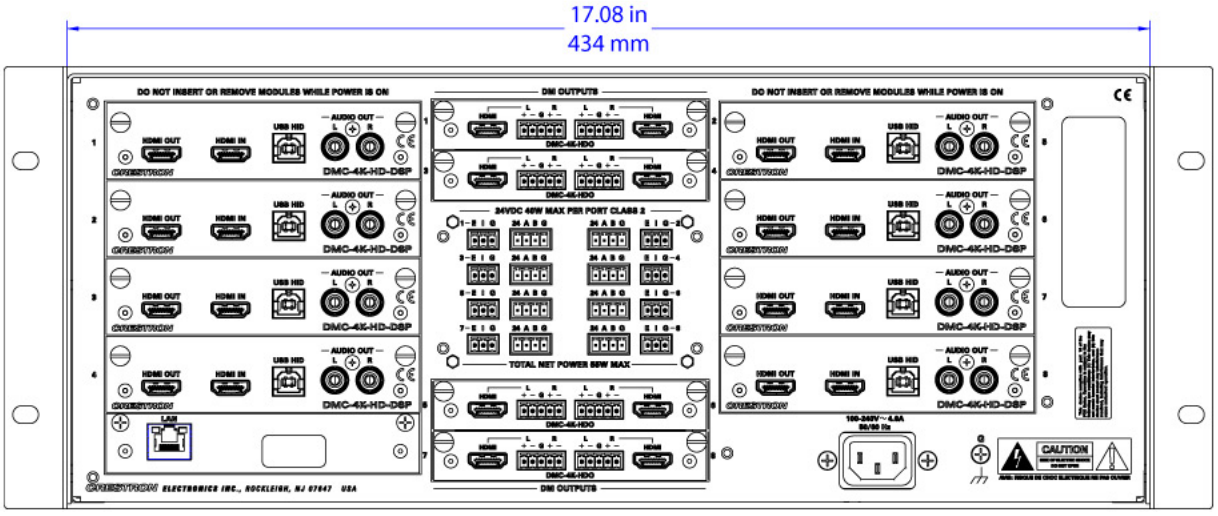
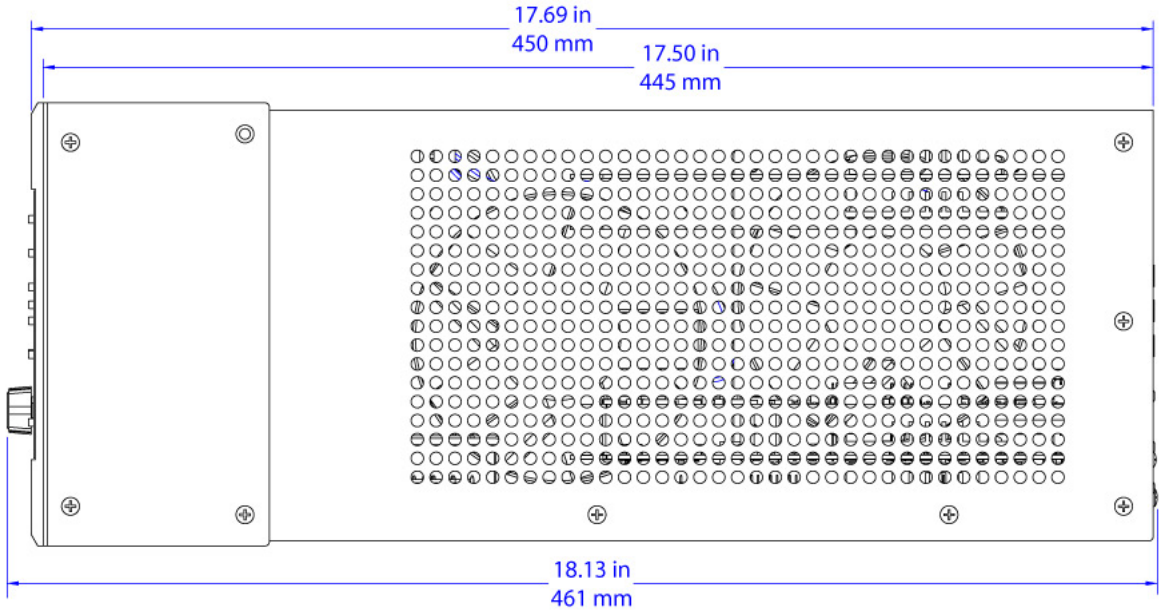
DM-MD8X8 8x8 DigitalMedia™ Switcher







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